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CONSULTATION NEEDS AND SEARCH ACTIVITIES OF NURSING STUDENTS

by

ANN FISK

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled Consultation Needs of Nursing Students submitted by Ann Fisk in partial fulfilment of the requirements for the degree of Master of Education.

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ABSTRACT

This study was undertaken to determine which members of the health care team nursing students consult for information, assistance and feedback regarding performance. Several questions were investigated including the sequence of clinical postings; students' perceptions of their consultation needs; frequency of, and satisfaction with, consultative and search activities; rationale for consultation; and perceived characteristics of the categories of personnel consulted.

The methodology used was the distribution of an original questionnaire, based on the stated questions, to eighty-five second year students in a hospital-based school of nursing preparatory to a diploma in nursing.

Literature regarding adult learning theory and nursing education presents several factors related to the variables investigated. The relevant concepts are presented in the second chapter.

The information derived from the statistical analyses of the data coincides with that in the review of the literature. That is, that nursing instructors, graduate nurses and peers (other nursing students) are the primary categories of health care personnel with whom nursing students consult. Other aspects of consultation, such as accessibility and personal/professional characteristics of the consultant, are also supported by the literature reviewed.

The results suggest several implications for nursing education. Among these, the most important relate to the practices and characteristics of nursing instructors which enhance the learning environment, and hence, the learning process for nursing students.

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CHAPTER 1

INTRODUCTION TO THE STUDY

Introduction

One of the purposes of teaching is to assist the learner to incorporate new patterns of information as they are received from interaction with the environment. The result is the maintenance of, or change in behavior. It becomes the responsibility of the teacher to create environments with which the learner can interact and which will encourage the acquisition and incorporation of new information into the existing repertoire of knowledge in the cognitive, psychomotor and affective domains.

Students enrolled in nursing education programs frequently find that they are placed in contact with patients in health care facilities early in their programs. At this time, there is emphasis placed on the mastery of many new skills. The primary focus of these skills is usually psychomotor, but components of the cognitive and affective domains are present in this acquisition. Furthermore, students are expected to achieve mastery of a vast theory base and demonstrate facility in its application in both the classroom and the clinical setting.

Students are generally placed in patient care situations under the guidance and supervision of an instructor. Although the instructor is ideally the person to whom students turn for information, assistance and feedback regarding performance, often other individuals fulfill these roles. The patterns of use of consultation, and the outcomes

and perceptions of students are not fully understood. These are the subjects of this study.

Purpose

The purpose of this study is to determine the specific groups of individuals to whom second year nursing students turn when they perceive a lack in their own knowledge base, judgement, or expertise in nursing care.

The assumption is made that these students will often seek assistance from their peers, other clinical instructors, and other members of the health team as well as the designated instructor.

A second purpose arising from this is to determine the circumstances that precipitate the need for students to seek further information. If clinical instructors can be informed of learning needs that nursing students generally perceive as being met inadequately, decision-making regarding the structure of these situations can be facilitated.

Another purpose is to determine the rationale for the choice of consultant. Adapting Haughey's (1976) definition, the consultant may be defined as the individual approached by the nursing student who seeks an exchange of advice and/or assistance in the educational setting; this setting can be clinical and/or classroom.

The assumption underlying the study is that nursing students who wish to consult with someone will approach members of the health care team and other students as well as the clinical instructor,

who may be considered extraneous to the direct delivery of patient care. In order to more clearly define the consultative structure used by these students, the conditions under which students seek consultation with various resource people are investigated. The study attempts to determine how often students consult with others, the concerns which serve to instigate this action, the personnel within the organizational structure from whom assistance is sought, and the degree of satisfaction achieved with the assistance given. Further details regarding the personnel consulted include the students' perceptions of the accessibility of each category of personnel as well as overall perceptions of qualities characterizing each category.

Eighty-five students in the second year of a 26-month hospital-based diploma program in nursing constitute the population of this study.

Statement of the Problem

Although students ideally turn to the clinical instructor to meet their consultative needs regarding the academic and/or clinical components of the program, this individual is not always selected for this purpose.

The following questions have been formulated to guide the study:

1. What are the students' perceptions of the extent of the need for consultation in each of five clinical postings?
2. With which personnel within the organization did the students consult, and with what frequency?

3. What are the students' perceptions of the accessibility of various resource persons for the purpose of consultation?
4. What are the factors which motivate consulting behavior?
5. What are the characteristics which students perceive as typical of each category of personnel consulted?
6. How satisfied are students with the results of consultation with each category of personnel?
7. What are the relationships, if any, between the students' consultation needs and demographic variables?

Significance of the Study

The students who seek a consultant may do so for one or more of several reasons. Some nursing students have mastered the necessary knowledge and skills pertaining to the clinical areas to which they have been assigned. The consultative activities in which they engage may demonstrate their desire for autonomy in deciding how they will achieve further growth, and how they will attempt to assist in meeting their own learning needs. With or without the assistance of the clinical instructor, they may seek the individuals perceived to possess the expertise that will meet these needs.

Students may also seek the assistance of other personnel due to a concern about approaching the instructor. They may perceive that their knowledge and/or skills are inadequate, and rather than expose this lack to the instructor will seek assistance from those who are not in a position of direct authority over them. It is anticipated that the greatest threats arising from confrontation

with a clinical instructor are embarrassment, negative evaluation and development of a reputation as a poor student.

Another reason students may seek consultation with other personnel is lack of availability of the instructor. Students who wish to achieve further growth, and who would otherwise seek the assistance of an instructor, may be hampered in this effort by other commitments faculty members generally have. Examples of this are the time spent with other students and meetings.

Weaker students, on the other hand, may perceive instructor absence and the attendant assistance from other personnel as an opportunity to function in a less stressful learning environment.

The significance of determining the consultative patterns of nursing students is that this discovery may assist nurse educators to enhance the consultative process, regardless of the students' rationale for engaging in the process. One further possible implication is the structuring of learning situations which facilitate rather than hinder the learning process, while meeting the objectives of the posting and/or program.

Definition of Terms

Consultation. Consultation is defined as a meeting initiated by the student for the express purpose of clarifying or expanding on an idea or issue related to theory or practice in the clinical setting.

Nursing Student. In this study, nursing student refers to students in the 10-month segment during the second year of a 26-month hospital-based program preparatory to a diploma in nursing in the province of Alberta.

300 Level. 300 Level refers to the 10-month portion of the above-mentioned program during which students complete five clinical courses, including either seven or eight week postings in medicine, surgery, psychiatry, obstetrics and pediatrics. The academic component of the 300 Level is comprised of theory requirements for each of the five courses, plus the material presented at a weekly class day when concepts relevant to the biophysical and psychosocial aspects of nursing practice are discussed with all students in the level.

Posting. A posting is the appointment of a group of students to one clinical area, generally under the supervision of a designated clinical instructor.

Clinical Instructor. The clinical instructor is the individual responsible for directing the teaching-learning process for nursing students in each posting. Clinical instructors have academic preparation in the fields of nursing and education, and generally teach in a clinical area in which they have experience and expertise.

Specialty/Area. These terms are used interchangeably to describe a division of the clinical setting according to patients' diagnoses. These divisions include medicine, surgery, psychiatry, obstetrics and pediatrics.

Limitations and Delimitations

Limitations. This study is limited by the nature of the participants involved, insofar as their perceptions of the events of the previous ten months may not be accurate. This may be particularly true of the least recent occurrences.

The format of the questionnaire for data collection is also a limitation. The instrument is lengthy as are some of the questions, which may lead to reduced interest in providing accurate responses.

Delimitations. The boundaries placed on this study include the following: it is based on the experiences of one group of nursing students of one hospital-based school of nursing, and it involves a questionnaire distributed at one point in time.

Organization of the Thesis

This chapter has provided a brief introduction to the study, statements of the problems and sub-problems and definitions of the pertinent terms.

Chapter 2 contains a review of the literature related to learning theory (including motivation and consultation), and nursing education (including characteristics of nursing students and the role of instructors).

In Chapter 3, the research methodology, data collection method and statistical treatment of the data are presented.

Chapter 4 describes the results of the data collection and discusses the findings of the data analysis used in the study.

Chapter 5 provides a summary of the research problem, procedure and results of the study. Implications for practice and for further research are included in this chapter.

CHAPTER 2

REVIEW OF THE LITERATURE

Introduction

The literature related to the consultation needs of nursing students has been divided into the following subject areas: adult learning theory and nursing education. The topics reviewed in adult learning theory are the general principles, motivation and learning and feedback. The topics reviewed in nursing education are programs, processes and personnel, including nursing instructors and nursing students.

ADULT LEARNING THEORY

Since nursing students are considered adult learners, the literature related to adult learning theory is pertinent.

General Principles

Knowles (1950:32-36) identified several principles related to teaching adults. They include the following:

1. students should understand and subscribe to the purposes of the course;
2. students should want to learn;
3. there should be a friendly and informal climate in the learning situations;
4. physical conditions should be favorable;
5. students should participate and accept some responsibility for the learning process;

6. learning should be related to, and make use of the students' experience;
7. the teacher should know the subject material;
8. the teacher should be enthusiastic about the subject material, and about teaching it;
9. students should be able to learn at their own pace;
10. the student should be aware of his progress, and have a sense of accomplishment;
11. methods of instruction should be varied;
12. the teacher should have a sense of growth, and;
13. the teacher should have a flexible plan for the course.

In 1970 Knowles defined the functions of the adult educator. These are to help learners diagnose their particular learning needs in specific situations, to plan with learners the sequence of experiences that will produce the desired learning, to create conditions that will help learners want to learn, to select the most effective methods and techniques to produce the desired effects, to provide the necessary human and material resources, and to help learners measure the outcomes of their learning experiences. These functions are described, in order, as diagnostic, planning, motivational, methodological, resource and evaluative.

Thorndike (1931:166) in a discussion of the evolution of learning states that "we do not learn in the main by virtue of any ideas that are explained to us, or by any inferences that we reason out. We learn by the gradual selection of the appropriate act or judgement and its association with the circumstances or situation requiring

it, ..." He goes on to say that this associative learning proceeds through a process of trial and success.

Bruner (1962) states that the most general objective of education is to help the student achieve optimum intellectual potential. He describes four themes central to reaching this goal, but one, in particular, is significant to the topic under discussion. This is related to the desire to learn and how it may be stimulated; Bruner makes several statements regarding teachers and how they may affect the student's desire and readiness.

In describing intuitive and analytic thinking he states that "it requires a teacher who can give approval and correction simultaneously ...." (1962:68).

Other statements which may be related to the qualities which influence the students' perceptions of the teacher include: "if the teacher is also learning, teaching takes on a new quality" (Bruner, 1962:90); "emphasis on excellence is still the slow but likely way" (1962:91); and "the teacher's task as a communicator, model, and identification figure can be supported by a wise use of a variety of devices that expand experience, clarify it, and give it personal significance" (1962:91).

Gagne (1965:212) stated that "one of the most important functions of the teacher is to become a source of adult guidance for the student. By assuming such a role, he is able to teach the principles that make it possible for the student to associate the specific achievement goals of a particular topic of instruction with larger, more general

goals." Also, "telling the learner what is to be his performance when learning is complete is a function of directions that seems to be of considerable importance to the learning process" (1965:221).

Ausubel (1968:453) in describing the 1934 study by Hart, stated that students prefer teachers who demonstrate "teaching skill, clarity, task orientation, and good classroom control...fairness, impartiality, patience, cheerfulness, and sympathetic understanding. In addition, they approve of teachers who are interested in pupils, and who are helpful, kindly, and considerate of their feelings."

Ausubel also said that personal commitment to the development of the student may be the most important characteristic the teacher possesses, which is consistent with Bruner's comments presented earlier.

Brophy and Good (1974:vii) stated that the "teacher must know relevant facts about each individual student, and know how to adapt his general instructional style to meet each student's particular needs and interests." They go on to say, in describing individual differences in teacher-student interaction patterns, that "appropriateness of teacher behavior depends upon the educational objectives the teacher is pursuing and such factors as the age and level of background preparation of the students" (1974:17). Salient to this study is another point made in the same discussion: "a given student will provoke somewhat different reactions in each of the different teachers he meets" (1974:363).

Brophy and Good believed that traits generally associated with effective teaching include democratic teaching style, warmth, enthusiasm, and an abstract belief system or conceptual style. However, they also stated that "no set of teaching behaviors is universally effective" (1974:363) and that teachers "must assess the appropriateness of their behavior with how it affects student performance" (1974:363).

In describing humanistic education, Gage and Berliner (1975:586) stated that a teacher who subscribes to this philosophy is one who is "a genuine, open and secure human being with essentially warm and favorable feelings about other persons ...," that they "work 'with' rather than 'upon' their students" (1975:586).

Motivation

The basic premise underlying this study is that all individuals seek competence and confidence in the activities they undertake. These goals serve to motivate students during the learning process. The realization of these goals may originate when individual learning needs are met as well as when the student receives recognition from a significant other. For example, the clinical instructor is the individual directly responsible for student evaluation, and is therefore of critical importance to the student's sense of accomplishment.

Several frameworks regarding motivation have been developed, and through these it is possible to gain understanding of this subject. Frameworks such as these may serve to help develop teaching strategies

that will enhance learning, and thus sustain interest in developing and maintaining strong performance. This in turn can contribute to feelings of success which further enhance motivation and willingness to risk future attempts, combining experience and knowledge with an increasingly mature approach to learning.

Many researchers have devoted themselves to the study of motivation and each defines it in his own way. Tannehill (1970:36) stated, "motivation is influence, force that gives rise to behavior." Marx (1967:1) described motivation as "an explanatory factor in behavior, particularly when no controlling environmental stimuli are clearly present and effective." Atkinson (1964:1) said that "the study of motivation has to do with the analysis of the various factors which incite and direct an individual's actions." A more succinct and more recent definition was offered by Steers (1981:53) that motivation is "that which energizes, directs and sustains human behavior." The three aspects of this definition may be elaborated in the following way: motivation represents the force which drives people to act in certain ways, this drive is goal-directed, and motivation is best understood when forces within and external to individuals provide them with feedback which influences the intensity and direction of those forces.

One prominent theorist in the study of motivation is Abraham Maslow who developed a framework of needs, whereby five basic need levels form the foundation of a hierarchy. In developing the hierarchy, Maslow attempted to interrelate a person's multiple, separate motivational episodes into a hierarchical structure which

would account for that individual's growth and regression. The first level, physiologic needs, is comprised of the basic biological functions of the human organism and includes such drives as hunger, thirst and the need for oxygen. Safety and security needs, the second level, refer to the desire for a peaceful and stable society. The third level, the need for love and belonging, is considered to be important in our society. The need for one's esteem of self and others is the fourth level and contains the desire to be held in high regard. This regard can be earned through achievement, competence, status and recognition, and is central to the basic premise of this study. The fifth level is the need for self-actualization. Maslow hypothesizes that unless an individual does what he is best suited to do, he will become discontented and restless. This level can be indicated by an individual's achievement of his potential, maximum self-development, creativity and self-expression. One indicator of needs being met at the level of self-actualization would include reaching the peak of a career, and in this respect, this need is not likely applicable in this study.

The student who strives for esteem or self-actualization may be motivated to set and achieve very high standards of performance. It is this student who will pursue sources of information and avenues of learning beyond those initially presented by the clinical instructor. It is to be noted that the instructor may also be consulted by this student.

This focus on higher level needs assumes that these needs become activated only as lower level needs are satisfied. If deprivation exists at the lower levels, the pursuit of the higher needs may be curtailed or cease altogether. Under these circumstances, students may be more preoccupied with achieving some degree of satisfaction of lower level needs rather than attending to meeting learning needs.

An important point related to this is that normal individuals are simultaneously both partially satisfied and partially unsatisfied in all their basic needs. The satisfaction of the esteem and self-actualization needs is rarely achieved and will be continually sought after, particularly as these needs become more important to the individual.

A second theory of motivation is the work of Frederick Herzberg (1959) who developed a two-factor theory of motivation related specifically to the work setting. Subsequent studies by Sergiovanni done in the educational setting upheld Herzberg's theory.

In his study, Herzberg asked each subject to describe events at work which yielded a significant improvement in job satisfaction, and those which resulted in a significant reduction. Herzberg found that positive events were dominated by such intrinsic factors as achievement, recognition, responsibility and the work itself. Negative events were perceived primarily as extrinsic. These included interpersonal relationships, policies and administration. Therefore, certain intrinsic factors, called motivators, can increase satisfaction although their absence does not necessarily cause dissatisfaction.

Theoretically, an individual operates from a neutral point, and the gratification of motivators will increase satisfaction beyond that point. On the other hand, when extrinsic factors, which Herzberg called hygiene factors, are not gratified, negative attitudes are created. Satisfaction of hygiene factors leads only to the absence of dissatisfaction. An implication for education is to create an environment in which the satisfaction of motivators can emerge as a dominant goal.

Another theory is a cognitive approach to motivation. The expectancy theory, proposed by Vroom (1970) is comprised of three concepts: expectancy, valence and instrumentality.

Expectancy is the belief that effort will yield successful performance. When an individual commences an activity there is the belief that a goal will be reached.

Valence is the degree of desirability that an individual attributes to a reward. Because each person assigns different values to different rewards, it is important for those in the field of nursing education to recognize the significance of the rewards to individual learners.

Instrumentality is the belief that a certain level of performance is essential for attaining a particular reward, or satisfying a valence. Instrumentality is the individual's perception of the correlation between the effort and the reward.

According to Hoy and Miskel (1978), the underlying assumption of the expectancy theory is that choices are related to psychological events happening with certain behaviors. Therefore, the premise is that motivation is the product of expectancy, valence and instrumentality. If a learner feels that strong performance will lead to the achievement of one or more of his personal goals, he will contribute more to his work. One conclusion is that motivation is positively related to performance.

To further examine motivation it may be helpful to focus on McClelland's (1953:310) study of achievement motivation. The people who are high in this need are the individuals who solve problems and accomplish their objectives.

They generally possess the following characteristics:

1. They prefer to do problem-solving on their own. This is, they develop a sense of ownership for the task and prefer to assume sole responsibility for it, although they are also quite capable of working in groups.
2. The high achievers want candid and factual feedback provided as soon as possible after their performance of a task.
3. They set moderately high goals for themselves not choosing those that are too low and hence, too easy to achieve; nor do they choose goals which are exceedingly high for which there is minimal possibility for success. There is satisfaction in actually achieving goals so the learner with a high achievement need sets goals which are interesting and challenging but also attainable.

Overall, the research in achievement motivation suggests that it is probably present when "moderately challenging tasks have to be performed in competitive situations, in situations where performance is perceived to depend upon some important or valued skill, and in situations where performance feedback is given" (McClelland, 1953:310). Research also implies that people with high achievement motivation seek situations in which they find success attractive. Thus it would appear that they are motivated towards further success. These results have profound implications for those involved in education.

Consultation and Feedback

Of the many purposes consultation serves, one of the primary goals is providing feedback. This is an important aspect in education, and as stated by Klausmeier (1975:351), "knowledge of results is one of the most powerful variables in skill learning." In many skills, the student can evaluate the effectiveness of the performance independently, but usually the observer must provide this information.

For some skills, feedback can be provided verbally. For others, the more effective approach is for the instructor to demonstrate the skill, and then for the student to return the demonstration. It has also been recommended in several studies that students have an opportunity to rehearse or "engage in mental practice" (1975:351) prior to and following their performance. This procedure helps the student to "intellectualize knowledge of results ... ascertaining what they have done well and possibly, where they have made errors" (1975:351). Klausmeier (1975:351) states that "learning progresses

only when inadequacy is identified and appropriate corrective measures are devised by the teacher.

NURSING EDUCATION

No studies bearing directly on the consultation needs and search activities of nursing students were found. However, journals for nurse educators include many articles which can assist in the development of a theoretical background related to the research problems.

While nursing education has both an academic and a clinical component, most nursing skills and attitudes learned by nursing students are related to behavior observed in role models. In the clinical setting, this is primarily the nursing instructor. However, there are numerous other individuals who influence the student through contact in this setting.

Therefore, it is the purpose of this section to address the literature related to the students' experiences in the clinical setting.

Although nursing students are considered adult learners, they constitute a special category because of the nature of their learning experiences. The combination of an academic workload and clinical practice creates a unique situation for these learners.

In the 1977 study described by Jones and Jones, the following questions were addressed: what and who do students perceive as influential in their nursing program with regard to their definition of the nurse role? Based on a sample of 139 nursing students, it

was found that there are three categories of individuals who most influence the student in socializing into the nurse role. These are the nursing instructor, the staff nurses in the clinical setting and fellow students. Consequently, each student was asked about the frequency of interaction with each category of individual and about the topics discussed.

It was found that in all of the programs examined students interacted most frequently with other students and least frequently with the staff nurses. The time spent with instructors varied, and fell between the two extremes. It was found though, that classmates (peers) were the least influential in these students' perceptions of what a nurse is, and that instructors were the most influential. The most commonly-cited reasons for this influence was that instructors were seen as being the primary role model. The authors proceeded to speculate that the fact that the nursing instructor is perceived to be the most influential person in the formation of role concepts illustrates the importance of the way in which students view instructors within the formal organization of the program. This is, students expect to learn from their instructors. Furthermore, the majority of the senior students who participated in this study stated that it was an instructor encountered during the first year of their program who was most influential. One reason for this may be found in a study done by O'Shea and Parsons (1977).

In that study which will be discussed later, it was found that junior level students tend to idealize their instructors. O'Shea and Parsons felt that a possible reason for this attitude on the

part of students was that they had not yet experienced ineffective instructor behaviors. This subject will be addressed in the subsection, Nursing Instructors.

The purpose of a study undertaken by Stuebbe (1980) was to determine how students and instructors viewed the instructor role. The results of the study demonstrated that students perceive instructors primarily as role models, and that they place high value on learning the skills and theory related to nursing practice. Instructors, on the other hand, valued teacher-student relations more. Stuebbe summarized by stating that open communication between the two groups, with regard to objectives and their views of each other's roles, would enhance the teaching/learning experience.

Programs

The nursing programs reviewed were located throughout North America, but primarily were American rather than Canadian. The programs varied widely in terms of length of time needed to complete studies, type of preparation and institutional setting.

Programs varied from twenty-four months duration for some diploma programs to four years for baccalaureate preparation. Graduate studies in nursing also differed in length.

The level and goals of preparation achieved by the various programs were quite distinct from each other. Diploma programs prepared the student, through classroom and clinical teaching, to become registered nurses. Baccalaureate and Master's degrees qualified individuals for positions in nursing service administration and nursing education.

Recipients of these degrees had greater preparation in many areas compared to those holding a diploma in nursing. These include statistics and research design, history and trends in nursing and administration, to name a few. Clinical experience was a component of these studies, but expertise in a specific clinical area was not generally an aim.

The institutions responsible for these programs varied as well. Diploma programs may be offered through colleges which have association with one or more hospitals in which students experience the clinical component. There were also hospital-based programs in which the academic and clinical elements were both provided through a single hospital. Graduate programs were conducted through universities and associated clinical facilities.

Group Processes

Virtually all nursing education is achieved through group processes. Traditionally, this group has consisted of the instructor and one or more students, with the instructor directing the teaching-learning experience. This has been the case in both the classroom and clinical settings.

However, another mode of learning in the clinical setting is through the use of less traditional types of groups. One variation consists of a group of students with the instructor present only to serve as a resource person. In these conferences the students are responsible for directing discussion. A second variation is the student peer group functioning independently. A third variation includes

students interacting with another member of the health care team usually through a formal arrangement initiated by the instructor or school of nursing.

In a discussion of the group teaching situation, Smallegan (1982) addressed some of the concerns which may arise from use of this method.

She pointed out that for the participants to benefit, the content must be appropriate and focused on the subject. To achieve this students must be familiar enough with the content so they may contribute to the discussion through statements and questions directed either at the instructor or the other students. Smallegan stated that a well-focused discussion on a subject about which students have adequate background "can be educationally and personally satisfying" (1982:23).

Frequently in nursing education, members of the health care team who possess clinical skills and knowledge are invited to share their expertise with nursing students. Although this is another example of a more formalized teaching-learning situation, it is one in which students are exposed to learning from a source other than the instructor. Literature regarding this particular circumstance appears to be scant; therefore, there is little evidence indicating the benefits or disadvantages for either the student or the person doing the teaching.

A third type of group is the peer group. In her article on the use of peer groups in nursing education, Kammer (1982) examined the influence of the group in educational settings and then addressed the use of peer learning in nursing education programs. As a

teaching-learning strategy, Kammer posited that "nursing faculty can take advantage of peer influences to complement rather than contradict their goals as nurse educators" (1982:19). Again, the word strategy implies elements of organization, focus and structure.

Following a description of the method she utilized, Kammer described five purposes of using peer groups. First, peer group learning provides a strong support system and collaboration. The latter element sets the stage for developing the strong working relationships which are essential to effective clinical practice. Kammer cited the work of Carl Rogers, by saying that learning is enhanced by a non-threatening environment, and that educational systems should foster settings wherein the learner may mature as an individual. Second, peer groups provide training in group dynamics and communication skills. Kammer felt that in the peer group, students have the opportunity to apply the principles of theory received in class, and because the student group controls the progress of the discussion, the experience is as minimally threatening as possible. Peer groups can also discuss group dynamics when involved in projects together. They have practice in assessing dynamics and in problem-solving towards greater effectiveness. Kammer stated that "when faculty members are present they serve as facilitators and role models for communication methods the group can use when they meet at other times" (1982:19).

Third, the group can provide peer evaluation and feedback in order to validate the level of nursing practice. Kammer concurred with the importance of faculty feedback but agreed with other writers that "peer involvement is more effective than feedback from authority

figures for promoting self-awareness and personal growth" (1982:19). Further, "the affirmation they receive from others encourages a feeling of self-worth and creates a climate that allows maximum learning" (1982:19). Another benefit of peer evaluation is the preparation of students for future experience in peer review of nursing colleagues. A final point related to peer evaluation, according to Kammer, is that "validating clinical performance with faculty may be easier because of previous practice with peers" (1982:19).

Fourth, peer group learning can help develop the students' sense of responsibility for their own growth and learning. Related to the subject under investigation, students may also "learn to make decisions about when to seek help from faculty" (1982:19).

Last, student creativity may be promoted in that role modelling "introduces different ways of approaching a problem and this contributes creative solutions to client problems" (1982:19). Kammer also cited Thomas (1979) as supporting the need for an accepting climate.

Kammer concluded by saying that a study of approximately 200 baccalaureate students revealed that students generally approved of the use of peer groups. A few students identified disadvantages, such as choice of membership and ineffective use of available time; however, Kammer stated that these realizations could be useful to students in future decision-making.

The peer group approach was also supported by the nursing faculty at the University of Indiana School of Nursing. It was felt that faculty members were used more effectively as resources and that

"students who fully tap each others' strengths are not so dependent on faculty" (1982:19). In order for peer groups to work, instructors must maintain a very positive approach regarding student strengths, "... a belief that students want to learn and are capable of developing to their own potential ..." (1982:19) and a belief that students will accept the responsibility for getting their own learning needs met. It is essential that the instructors communicate these beliefs willingly and openly to the students, many of whom are accustomed to negative feedback. Kammer stated that given faculty support, peer groups can lead to the development of a positive environment for both students and faculty.

Non-traditional Situations

Traditionally, the most common practice in teaching in the field of nursing has been that students are taught and supervised by instructors who have demonstrated clinical expertise and teaching ability, and who generally have baccalaureate preparation. These people have been hired by the institution for the express purpose of teaching nursing students.

In recent years however, there has been a trend toward augmenting instructor supervision with that of other nursing personnel.

Christman (1979) may serve as an introduction to this non-traditional situation for learning. Herein, the instructor does not take sole responsibility for directing the teaching-learning process which occurs in either the classroom or clinical setting.

One application of this concept in some institutions is the use of preceptors; that is, staff nurses assume the role of clinical supervisor of a student or students, generally in addition to their patient care responsibilities. This arrangement is achieved through formal agreement between the educational and service institutions.

Three examples from the literature can serve to illustrate this concept. First, in a 10-week elective summer nursing course offered to students between their junior and senior years in the baccalaureate program at the University of Connecticut, students worked as hospital employees with instruction and supervision provided by a university faculty member and a preceptor from nursing service. "The major goal of the course was to provide the opportunity for students to apply newly acquired theory to practice with groups of patients under actual working conditions" (Suess, 1982:28). The preceptors in this situation were primarily staff nurses provided by the service facilities involved. They were responsible for the guidance, supervision and direction of the student, and remained constant for a particular student until the student was assigned to another shift. Evaluations of the student and of the course were done jointly by the faculty member, the preceptor and the student. This is an illustration of a structured learning experience provided over a relatively short period of time.

An example of similar structure executed over a more prolonged period is the Rush College of Nursing at which clinical teaching assistants are primary nurses who maintain responsibility for patient care and student teaching. The purpose of the system is to "integrate the fragments of nursing practice, education, and research into a

unified professional nursing practitioner-teacher-researcher role" (Clark, 1981:314). The clinical teaching assistants undergo an extensive orientation familiarizing them with various aspects of the teaching responsibilities. Following the initial preparation, the nurses are expected to participate in ongoing activities designed to keep them informed and current. In this instance both the practitioner-teacher (clinical instructor/faculty member) and the teaching assistant supervise students as well as carry a clinical caseload.

Nurses who participate in the program respond positively to the challenge and responsibility of teaching. It is also reported by Clark (1981) that the relationship between service and education has been enhanced by the program. Students offered enthusiastic support for the nurses' involvement in their learning, and contrary to the findings in some other sources, found the staff nurses to be excellent role models. It is to be remembered that, unlike less structured situations in which students and staff nurses interact, the teaching assistants at Rush undergo a selection procedure followed by appointment by the chairman of the department. This is followed by orientation, inservice, supervision and evaluation. Clark states that "before such a program is initiated, both the educational and health care facilities need to examine their philosophies, identify their resources, and estimate the costs" (1981:318). Furthermore, "quality of the program and the amount of recognition given teaching assistants directly reflects the value educational and health care institutions place on nursing and on excellence in clinical practice and clinical teaching"

(1981:318). As has been indicated previously, this degree of cooperation and enthusiasm between the two institutions, though desirable, is not common. The benefit accrued by these students is therefore also somewhat rare, and depends a great deal upon the qualities of the individual staff nurse sought out for consultation.

A third example of the faculty member-preceptor-student arrangement was documented by Dobbie and Karlinsky (1982). In the post-RN baccalaureate program at the University of Calgary, each student and faculty advisor develops a contract designed to meet the course objectives and the student's objectives. The advisor also determines those staff nurses who would serve as appropriate preceptors in the clinical setting. Subsequently, the advisor is responsible for the orientation of the preceptor as well as that of any other personnel who are influenced by the student's presence. Evaluation of the student is accomplished through the collaboration of all three members of the teaching-learning group.

Dobbie and Karlinsky felt that this structured experience, which relies on the clinical expertise of the preceptor, offers the student the opportunity to "assess professional attributes and values" (1982:40). Also, they stated that, "each preceptor plays a vital role in both the development and supervision of the contract. As practitioners they are able to give the students realistic guidelines and to set limitations or expansions in the contract as they see fit" (1982:40).

The authors concluded by stating that the program's benefits to the students included influencing career progress, developing new knowledge and skills, stimulating self-direction and enhancing decision-making ability.

Nursing Instructors

The literature in nursing education provides ample documentation regarding effective teaching behaviors, evaluation of faculty and the function of role modelling as demonstrated by instructors. Although discussion of these subjects is not directly related to the current study, it does indicate trends. Furthermore, it is felt that each of these does impact upon the patterns of consultation that students use.

Functions. Grassi-Russo (1981) pointed out that the instructor as a role model assumed greater importance in nursing than in other fields because of the nature of clinical experience. She stated, furthermore, that if students experience anxiety and fear, instructors become even more important. In this case, they are not only perceived as models of professional competence, but also as examples of emotional calmness and strength to whom students can turn for support.

What becomes particularly important, according to Grassi-Russo, is a faculty attitude that conveys belief in a successful outcome for students. Because of the positive role model status of instructors, this expectation could be a powerful influence on students but it requires effective communication, planning, time and commitment on the part of all involved.

Archer and Fleshman (1981:586) stated that "students learn in a supportive setting how to model and adapt their own practice by watching and working with faculty in action."

Christman (1979) in his discussion of internalization of roles, stated that this process occurs during the formative phase of becoming a professional, thus supporting Jones and Jones' (1977) finding that the greatest influence of an instructor is usually exerted during the first year. The impact of this on students is seen in the following role behaviors indicated by Christman:

1. establishing general sets of expectations for role performance upon full entry into the profession;
2. providing the general dimensions of possible career patterns;
3. exemplifying the value system considered normative for the profession;
4. helping to inform the student with regard to the relationships to expect with patients and other members of the health care team;
5. giving insight into leadership style;
6. developing for each student a benchmark by which to evaluate the quality of clinical practice (1979:8).

Following the above statement of behaviors Christman went on to state that nursing students do not necessarily learn the parameters of the clinical model of care from the most able practitioners. Rather, he says "nursing students ... are placed in the invidious position of being caught frequently in a covert warfare between nursing staff

and nursing faculty (i.e. clinical instructor) where the students are viewed as invaders and disrupters of care, or at best, tolerated with social politeness" (1979:8). Because students must often rely on staff nurses to meet their learning needs, and because these nurses are usually less prepared than faculty, role induction suffers. Furthermore, alienation of students from the nursing profession can be another outcome. Another more long range result of exposure to negative attitudes is indifference to further education and promotion within the profession, and thus, could be posited as one reason why nursing lags behind other professions in terms of growth and change.

Christman offered the following solution: the combination of practitioner and teacher as a means of enabling qualified nurses to portray all of the components of a full professional role, as measured by the behaviors previously mentioned. However, in most schools of nursing role separation between service and education is still the prevalent pattern.

Kuhn (1982) in describing her joint appointment through the University of Texas Health Science Center, made several statements which are relevant to a discussion of the consultative needs of nursing students. She stated that "students viewed their instructors as unrealistic and idealistic, while perceiving nurses in the clinical areas as the 'real' nurses" (1982:1570). Students often saw their instructors as having only superficial involvement with nursing practice, whereas staff nurses were perceived as critically involved in all aspects of patient care. Kuhn felt that her technical skills might not be adequate in the clinical setting but rationalized this,

until her acceptance of a joint appointment, by saying that it was impossible for one person to have the vast theory and practical base necessary to both teach and practice nursing.

As an instructor Kuhn observed a conflict between what students observed in the clinical setting and what they were taught. Also, with the joint appointment, she reached a greater appreciation of the stresses exerted on staff nurses when students were present. In addition to already busy schedules, students required extra time and patience from staff.

Major problems of a joint appointment included the following: time constraints, poor understanding of the joint appointment, and philosophical differences between nursing service and education. On the other hand, through joint appointments, students perceived instructors as 'real' nurses, staff nurses and instructors began to share a collegial relationship, and instructors felt an increase in self-confidence in nursing practice.

Kuhn summarized by suggesting that service and education must become more involved in each other's activities so that both may benefit.

Attributes. Several authors have described the attributes considered desirable in nursing instructors.

Cotanch (1981:5), in a discussion of the professional socialization of nursing students, stated that "nursing instructors are expected to be experienced, successful, master practitioners of nursing," thus

supporting the results of other studies. In citing the results of these studies, Cotanch also stated that clinical instructors were seen as positive role models for nursing students while graduate nurses were seen as negative role models.

O'Shea and Parsons (1979:411) in their study of effective and ineffective teaching behaviors, stated that "effective teaching behaviors mean those actions, activities, and verbalizations of the clinical instructor which facilitate student learning in the clinical setting." Although there is variation in the number of requirements believed to be important for teacher effectiveness, there appear to be two broad categories delineated by most authors. These include personal qualities and professional qualities.

O'Shea and Parsons quoted Jacobson's (1966) study which identified six categories of qualities. These six are particularly relevant to the current study and include the following: "availability to students; apparent general knowledge and professional competence; interpersonal relationships with students and others; teaching practices in classroom and clinical settings, personal characteristics; and evaluation practices" (1966:412).

They also describe the Kiker (1973) study of undergraduate students in nursing and in education, and graduate students in nursing. A perusal of Kiker's work reveals that twelve pertinent characteristics could be categorized into three groups. In descending order of importance, these are professional competence, relationships with students and personal attributes. Because the current research involves

nursing students, the qualities seen as most important by undergraduate students in nursing in Kiker's work will be discussed. In the area of professional competence, the subjects felt that organization of classroom and laboratory experience was most important followed by the instructor's demonstration of skills, attitudes and values related to nursing. Fair and objective evaluation was ranked as most important in the second category, and in the third category, students valued an instructor's sense of humor.

In Kiker's (1973:723) summary, she stated:

> By being concerned with the students' problems and by being accessible for conferences, the instructor is in a position to encourage the student and to prevent problems from occurring in the classroom and clinical area. A student who is assured of the instructor's interest and of a fair, impartial evaluation may feel a greater motivation to learn.

O'Shea and Parsons identified three slightly different categories as a means of measuring the effectiveness of instructor behaviors. These three include evaluative behaviors, instructive/assistive behaviors and personal characteristics. The results with regard to evaluation were similar to other studies; that is, that positive, honest feedback facilitates learning. Faculty availability was found to be the most important factor in the instructive/assistant behaviors. Of the personal characteristics examined, friendly, understanding, supportive behaviors were identified as most facilitative.

Brown (1981) reviewed the writing of several authors who described the various characteristics of the effective clinical teacher. This study indicated that students felt instructor relationships with students ranked first, professional competence was second, and personal

attributes third. The faculty ranked the same categories in the following order: professional competence, relationships with students, and personal attributes. Personal characteristics included warmth, honesty and enthusiasm for their work. Professional traits encompassed the fields of nursing and education, and included expertise in nursing practice as well as in teaching, easy accessibility to students and the use of fair and responsible evaluation practices. Brown's study itself measured the importance of these attributes.

Brown stated that one implication of her study is that nurse educators should attempt to develop greater interest in student concerns. She indicated a need for professional development for faculty in the areas of interpersonal relationships and teacher-student relationships. Furthermore, students should be part of this process and attempt to maintain open communication with instructors.

Brown identified a second implication, that of reducing fear and anxiety in the student which would enhance the ability to successfully complete tasks in the clinical setting. She suggested that the need exists for clinical teachers to examine their personal attributes and teaching methods with a view to changing if necessary in order to meet the learners' needs. Students must also examine their own attitudes and behavior in order to establish mutual understanding and respect with their teachers.

Brown stated that the ultimate goal of the study would be the improvement in clinical teaching through the identification of effective clinical teacher characteristics.

The literature specific to faculty evaluation provides documentation of the same traits already identified as effective teacher behaviors, but focuses on the role of the student in determining to what degree the instructor contributes to quality education.

Mims (1970), and Butler and Geitgey (1970) concluded that students, as consumers of nursing education, can make a worthwhile contribution by helping instructors improve their teaching practices.

To summarize, it would appear that most students value instructor availability, honest feedback given in a supportive and understanding manner, and professional competence.

Nursing Students

Most of the literature on the characteristics of nursing students is derived from students enrolled in baccalaureate programs, but these comments are applicable to students in diploma programs, such as the one under investigation.

Self-Concept. The self-concept of students is an important variable which has been noted in some studies. In Ellis's (1980) study of the self-concept levels of students, she stated that students were familiar with the tasks they were expected to perform but felt afraid to proceed independently. Rather, the constant presence or availability of an instructor made autonomy and self-reliance unnecessary until the day of graduation at which time the new graduates are expected to function on their own and act as resource people for other members of the health care team. This situation does little to enhance self-confidence. In describing the baccalaureate student and

implications for nursing education, Ellis stated that the student "must graduate with self-confidence and self-esteem which will enable performance at the standard expected in the work system. To accomplish this goal, nursing education must focus on building self-concepts and self-confidence" (1980:390). Ellis also recommended that further investigation is needed to determine the precise point in a program when the students' level of confidence is most deeply shaken.

Concerns. The concerns of nursing students have been documented in numerous studies. In the study conducted by Packard et al. (1979) the work of Huller and her colleagues in teacher education was used extensively in the belief that the similarities between nursing and education would reveal parallel patterns of concerns between the two groups. The Packard study indicated that major differences lay in the fact that nursing students have contact with patients from the early stages of their programs, that there is emphasis placed on the mastery of many skills requiring dexterity and concentration, and that these are often applied in critical patient-care situations.

Ten group sessions were used to allow students to discuss their concerns and to collect data. Contrary to the hypothesis proposed, this study revealed that student concerns did not move from self to patient as the program progressed. Rather, the greatest number of concerns dealt with faculty and administrative structure, and the least with concerns regarding patients. The concerns regarding faculty and administrative structure included time-consuming schedules and heavy workloads; pressures experienced as a result of perceived faculty

expectations, and the short duration of assignments to clinical facilities.

Autonomy. The development of autonomy in nursing practice is a factor which is very important to students and their instructors. Murray and Morris (1982) compared the degree of professional autonomy among senior students in diploma, associate degree and baccalaureate nursing programs. They found that many nursing curricula do not stress autonomy and the independent aspects of nursing.

O'Shea and Parsons (1979) in their study identifying facilitative teacher behaviors, postulated from their results that senior students may receive less understanding and support from faculty members than their more junior counterparts. They felt that this arose from the belief that senior students will demonstrate more confidence, independence and sophistication in their nursing judgements and hence, require less supervision. However, the study indicated that the students themselves felt the need for greater instructor presence. Thus it is concluded that junior and senior students do not differ in terms of their attitudes toward instructor supervision and their own independence.

Stressors. Various studies have focused on stressors experienced by nursing students. In a study by Stein (1969) it was found that senior students in nursing could be characterized by stressors related to three areas of concern. These were definition of professional roles consistent with the roles of maturing females, achievement in nursing and development of professional values orientated to providing

satisfactory patient care, and finally, illustration of the conflict between concepts of ideal nursing and actual nursing practice.

As indicated in previously mentioned studies, Stein proposed the development of reciprocal student-faculty interaction and of teaching more realistically, with orientation to actual nursing practice as a means whereby conflict for students could be effectively reduced. Relevant to this study, Stein also proposed "closer interaction between physicians, nursing service personnel, school of nursing faculty, and students."

McKay (1978) provided a historical review of literature identifying factors which nursing students have found stressful. In reporting a study by Fox et al. (1963), McKay stated that the major stressors were as follows: coordination of class and clinical schedules, expectations of instructors, feelings about nursing as a profession, working relationships in the clinical setting, and school rules and policies. McKay found that traditionally, those nursing students who developed a strong system of peer support, were most able to overcome the difficulties they encountered as part of their nursing education. She cited several sources which reiterate the theme of the peer group member as friend, advisor, counsellor, and concluded by indicating the need for faculty members to take a more active role in helping students to deal with stress. She suggested that faculty be more willing to initiate change in faculty-student interaction and that they establish an atmosphere which reinforces that the students are of primary importance.

RELEVANCE OF LEARNING THEORY TO NURSING EDUCATION

Many of the concepts presented in the review of the literature related to learning theory are relevant to nursing education. Knowles' description of the adult educator's functions as diagnosing, planning, motivating, determining appropriate methodology, acting as a resource and evaluating the learner is applicable to the nurse educator's role. This description is supported by virtually all of the theorists reviewed in relation to nursing education. These concepts can be examined very briefly in terms of professional, motivational and personal qualities.

One of the important professional qualities proposed by Knowles (1950) was the teacher's knowledge of the subject. In nursing education, this attributed was subscribed to by Jacobson (1960), Brown (1981) and others reviewed.

Two examples from the review of learning theory related to motivation illustrate the importance of this concept in nursing education. Steers (1981) identified that feedback influences the intensity and direction of motivational forces, and McClelland (1953) stated that candid, factual feedback motivated high achievers. In a discussion regarding nurse educators, Kiker (1973) stated that fair and impartial feedback may enhance students' motivation. O'Shea and Parsons (1979), Brown (1981) and others found that nursing students valued fair and realistic evaluation practices as attributes of nursing instructors.

Personal qualities of teachers have received considerable attention in literature related to learning theory and to nursing education. Brophy and Good (1974) emphasized the importance of warmth, enthusiasm and a democratic teaching style while Knowles (1950) stressed a friendly, informal climate and O'Shea and Parsons (1979) addressed such characteristics as friendliness, understanding and support as elements of a facilitative teacher-student relationship in nursing education.

Throughout the review of the literature related to adult learning theory and to nursing education, parallels can be drawn which have implications for nurse educators.

CHAPTER 3

INSTRUMENTATION AND METHODOLOGY

The research methodology of this study is outlined in this chapter. It begins with a description of the instrument used in the study. This is followed by discussion of the data collection procedures and the treatment of the data.

INSTRUMENTATION

Design and Pilot Test of the Instrument

The purpose of the study was to examine the consultation needs and activities of students in a hospital-based diploma program in nursing. The data collection instrument was based on currently available literature related to the subject. The questionnaire was divided into two major sections and consisted of twelve items. The major sections related to consultative practices and classification data. Space for additional comments was included at the end of the questionnaire.

The instrument was pilot tested in June 1983 with four graduates from the Class of April 1983 of the University of Alberta Hospitals School of Nursing. These respondents were contacted by phone and asked to participate in this phase of the project. They were asked to complete the data collection tool, attending to the following: content and clarity of questions, order of questions, suggestions for inclusion of other items, clarity of instructions, and time needed to complete the questionnaire.

All four people selected to pilot test the instrument responded. Frequency distributions were made for each item in the questionnaire and comments regarding format and content were noted. Some adjustments were made based on input from these respondents.

The Instrument. The instrument utilized in the study is included in Appendix A. It contains two sections. Section 1 addresses the consultative needs of nursing students. Respondents were asked to answer questions related to several facets of the consultative practices of nursing students participating in a hospital-based diploma program.

The variables which were included, and the rating scale or checklist used for each follow. First, respondents were asked to indicate the individual perception of consultative needs, on a 5-point scale. The response key was as follows:

1 - very low

2 - low

3 - average

4 - high

5 - very high

The second item dealt with the frequency of consultation with selected members of the health care team. The response categories included the following frequencies: never, 1-3, 4-6, 7-9 and more than 9, during the ten month period under investigation.

The third item was the student's perception of the accessibility of each category of health care team member, and the following scale was used:

1 - very hard to reach

2 - hard to reach

3 - somewhat hard to reach

4 - easy to reach

5 - very easy to reach

A choice of "not applicable" was included in the event that an individual student had not consulted with a particular category of personnel.

The next question sought to discover the reasons this population of respondents chose to consult with members of the health care team in the clinical setting. Respondents were directed to mark a check next to any reason listed which was felt to be applicable to their consultative needs during the 10-month period.

The next item was personal and professional characteristics which the respondents perceived as applicable to each of six broad categories of members of the health care team. These categories included medical personnel, nursing instructors, nursing personnel, allied health professionals, technicians and other nursing students. For each statement perceived of as applicable, the respondent was asked to make a check mark.

The final item was the general degree of satisfaction the respondent felt with the consultation she/he initiated. The response key was as follows:

1 - very dissatisfactory

2 - somewhat dissatisfactory

3 - satisfactory

4 - somewhat satisfactory

5 - very satisfactory

Again, the "not applicable" category was included for the previously stated reason.

Section II, Classification Data, includes the following variables: sex, domestic status, age, past work experience and level of education. It was thought that these variables might differentiate nursing students into groups with significantly different consultative needs.

METHODOLOGY

Collection of Data

The study instrument was distributed to nursing students studying in the second year of a twenty-six month hospital-based program.

Participants for the study were obtained by contacting the 300 Level Coordinator at the University of Alberta Hospitals School of Nursing. The nature of the proposed research was explained and permission to distribute the questionnaire to one entire class of students was obtained.

At the suggestion of the Coordinator, there was a subsequent meeting with the seventeen faculty members teaching in the 300 Level at the time the research was conducted. The study was described to this group.

Eighty-five questionnaires were distributed to a group of 300 Level students, fifty-six of whom had completed all five clinical postings in the level and twenty-nine of whom had successfully completed three postings and had two postings yet to be done. The five postings include medicine, surgery, pediatrics, obstetrics and psychiatry. They are not completed in the same order by any given group of students. The posting in which any given student starts 300 Level is arbitrarily determined by the Level Coordinator. The subsequent order is influenced by such variables as limitations imposed by, and commitments to, nursing service within the hospital. At the time the research was conducted all eighty-five had completed obstetrics and the numbers of students who had completed each of the other postings varied.

The questionnaire was distributed to the respondents with the group of eighty-five divided between two rooms due to limitations of space. The nature of the research project was explained to each of the two groups separately. Following the respondents' completion of the questionnaire, the study instrument was collected. All were returned, but one was incomplete, representing ninety-eight percent of the study participants.

Statistical Analyses

Frequency and percentage distributions were obtained for each item in the questionnaire.

In analyzing the data from Section I, mean scores were computed for the following items: perception of levels of consultative needs in each of the five clinical postings, frequency of consultation with each of the designated categories of health care team member and level of satisfaction with the consultation with personnel in each of those same categories.

Data derived from the frequency distributions of several independent variables in Section II were analyzed in terms of the means of the following dependent variables: students' perceptions of consultation needs, frequency of consultation and degree of satisfaction with consultation. Analysis of variance was computed to determine the presence of statistically significant differences in means between each of the three dependent variables and domestic status.

T-tests were computed to determine the presence of statistically significant differences in means between each of the dependent variables and each of the remaining independent variables.

A Pearson product moment correlation was computed to determine if statistically significant correlations existed among the three dependent variables.

SUMMARY

The data for this study were collected by means of a questionnaire survey. The questionnaire was divided into two major sections: information related to the consultative practices of nursing students and classification information. Frequency and percentage distributions were used in the data analysis.

The questionnaire was distributed to eighty-five nursing students involved in the second year of their studies in a twenty-six month hospital-based program toward a diploma in nursing.

CHAPTER 4

ANALYSIS OF THE DATA AND DISCUSSION OF FINDINGS

This chapter describes the results of the data collection and discusses the findings of the data analysis used in the study. The information is reported in three sections. The first section provides a description of the population; the second section presents the findings regarding consultation needs; and the third presents an analysis of the relationships between perceptions related to consultation needs and key demographic variables.

THE STUDY POPULATION

Classification Data

The nursing students were asked to respond to six questions related to personal factors and work/education experience. The information which was obtained is summarized in Table 1 by frequency and percentage distributions. The table shows that the vast majority of respondents were female.

At the time of the study 54.1% of the respondents lived with family or spouse. It was felt that this variable might indicate a support network for the individual involved in the program of clinical and academic endeavor.

The age of the respondents is also shown in Table 1. The findings show that 84.7% of the nursing students were between the ages of 16 and 25 years. 15.3% of the respondents were over 25 years of age.

With regard to past work experience 72.9% had worked at an occupation not related to the provision of health care. 30.6% of all respondents had worked in a health care facility but were not involved in nursing, and 32.9% had had some nursing experience in a health care facility or home care setting. The response suggests that some individuals had pursued occupations in more than one field before becoming involved with nursing.

TABLE 1

DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS: PERCENTAGE DISTRIBUTIONS

Variable					
Age	16 - 20	21 - 25	26 - 30	31 - 40	>40
	37.6	47.1	10.6	4.7	0
Sex	Female		Male		
	95.3		4.7		
Domestic Status	Living Alone	Spouse/family		Shared quarters	
	10.6	54.1		35.3	
Previous Work Experience	Outside health care	Non-nursing (health care facility)		Nursing (health care/ home)	
	72.9	30.6		32.9	
Level of Education	High school	Baccalaureate		Other institutions	
	82.4	3.5		14.1	
Other Post-secondary Education	Technological Institute	Other School of nursing	College	University	Other
	14.1	4.7	23.5	31.8	7.1

On the subject of level of education, respondents were asked to indicate the highest level they had achieved, not including the program of study currently being undertaken. 82.4% had a high school diploma, and 3.5% had a baccalaureate degree in a field other than nursing. None of the respondents had completed a higher degree. The category on the questionnaire labelled "other" was indicated by 14.1% of the respondents, and yielded a wide variety of previous educational experiences. Among these were diplomas from technical institutes, vocational schools and varying lengths of time in university programs.

Respondents were also asked to indicate other post-secondary institutions which they had attended, which produced some overlap with the previous questions. The results were as follows: 14.1% had attended a technical institute, 4.7% had been enrolled in another school of nursing prior to enrolling in the program studied in the research project, 23.5% had attended college, 31.8% had attended university and 7.1% had been enrolled in some other post-secondary institutions but none of the respondents indicated the nature of their studies.

CONSULTATION NEEDS

Sequence of Postings

At the time of the study, the clinical experiences of this group of respondents varied in terms of sequence and number of postings completed. Regarding sequence, there are several combinations available to each student, as illustrated in Table 2. As shown in

Table 3, sixty students had completed all five postings at the time of the study, and twenty-four had completed only three. All students had finished the posting to obstetrics, having completed it among the first three postings in 300 Level.

TABLE 2

NUMBER OF STUDENTS IN SEQUENCES OF POSTINGS IN 300 LEVEL

	Sequence of specific postings					
Clinical Area	1st	2nd	3rd	4th	5th	Not Done
Medicine	17	15	26	0	0	11
Surgery	26	0	0	22	22	14
Pediatrics	15	8	0	24	21	17
Obstetrics	17	34	24	0	0	0
Psychiatry	0	27	34	15	0	8

TABLE 3

NUMBER OF POSTINGS COMPLETED AT TIME OF STUDY

5 Postings Completed	60
3 Postings Completed	24

Perceptions of Consultative Needs

The respondents were asked to indicate their perceptions of their consultative needs for each of the postings that they had completed. For the majority of students this reflected experience in five postings.

As indicated in Table 4, students felt that their greatest consultative needs occurred in medicine. In descending order from that point the next highest need was in surgery, followed by pediatrics, obstetrics and psychiatry, in which students felt the least need to consult with others.

In the postings to medical units, the majority of students perceived their consultative needs to be high or very high. In surgery the distribution between average and high-to-very high needs is almost equal, with very few students perceiving their need to be in a lower range. This same trend is apparent in pediatrics. In obstetrics, the highest number of respondents indicated an average need for consultation, although those who considered their needs to be high or very high constitutes a considerable number. Psychiatry was the posting in which students' perceptions of consultative needs were the most evenly distributed amongst the categories ranging from very low to very high. The greatest number of respondents perceived this need to be average.

TABLE 4

PERCEPTIONS OF CONSULTATIVE NEEDS

Clinical Area	Perceived degree of consultative need+			
	Very low and low (1,2)	Average (3)	High and very high (4,5)	Mean
Medicine	4	28	35	3.58
Surgery	5	27	29	3.53
Pediatrics	8	27	23	3.29
Obstetrics	15	42	27	3.21
Psychiatry	20	29	21	3.01

+Scale: 1 - Very low, to 5 - Very high.

Perceptions of Consultative Needs by Sequence of Posting

For each posting, students were grouped in terms of the sequence in which they had completed that particular posting. For example, as shown in Table 5, in the case of medicine there were four such groups. Analysis of variance was performed on the group means to see if sequence affected consultative needs in a particular posting. Only in the case of psychiatry were any significant differences found. A Scheffe' test, used to locate these differences, disclosed that a significant difference existed between the means of the perceptions of need of the second and third groups in the posting.

TABLE 5

PERCEPTIONS OF CONSULTATIVE NEEDS
BY PLACEMENT BY AREA

	Sequence of Individual Posting							
Clinical Area	First	Second	Third	Fourth	Fifth	Not Done	F	P
Medicine								
Number of students in posting	17	15	26	0	16	11		
Mean perception of need	3.44	3.44	4.08	-	3.69	-	1.42	0.25
Surgery								
Number of students	26	0	0	22	22	14		
Mean perception of need	3.61	-	-	4.19	3.31	-	0.67	0.58
Pediatrics								
Number of students	15	8	0	24	21	17		
Mean perception of need	3.46	3.13	-	3.16	3.6	-	0.35	0.79
Obstetrics								
Number of students	17	24	25	0	0	0		
Mean perception of need	3.31	3.15	3.23	-	-	-	0.2	0.94
Psychiatry								
Number of students	0	27	34	15	0	8		
Mean perception of need	-	2.71	3.24	3.13	-	-	5.27	0.0

Initiation of Consultation

The students were asked to specify the number of times during 300 Level that they had initiated consultation with designated categories of health care team member.

The information in Table 6 indicates that the frequency with which personnel were consulted varied considerably. The results were clustered into high and low frequency groups. The five most frequently consulted and three least frequently consulted categories of health care team members have been presented in descending order.

As Table 6 indicates the most frequently consulted category of personnel was that of instructor. It is noted that all respondents had consulted with the instructor at some time, and 59 had initiated consultation more than nine times.

Second in the rank order of most frequently consulted personnel were graduate nurses co-assigned with a 300 Level student, to work with a patient or patients. Although one student indicated that no consultation was initiated by him/her, the majority of students (54.8%) reported consulting with the co-assigned nurse more than nine times. It is to be noted that 300 Level students are not always co-assigned. The decision to co-assign students is generally made by the instructor in cooperation with the unit and/or area supervisor, and is based on such factors as the acuity of the patients' conditions in the area.

TABLE 6

NUMBER OF CONSULTATIONS INITIATED WITH HEALTH CARE TEAM MEMBERS: FREQUENCY DISTRIBUTION

Category of Personnel Consulted	Number of consultations initiated				
	Never	1-3	4-6	7-9	10+
Instructor	0	5	12	13	59
Graduate nurse, co-assigned to student	1	4	20	13	46
Team Leader	2	17	13	17	35
Other 300 Level student	3	11	18	13	14
Graduate nurse, not co-assigned to student	3	25	20	14	22
400 Level student	68	10	1	2	3
Pharmacist	63	22	0	0	0
Area Supervisor	70	11	1	2	0

As shown in Table 6, team leaders ranked third in frequency of consultations initiated by students. 41.7% of students had approached a team leader more than nine times during clinical experience. Team leaders are the individuals responsible for directing and managing the nursing activities, and are often assigned to this duty on a daily or weekly basis. One function they fulfill is to relay messages such as physician's orders to the nursing staff

responsible for individual patients. It is in this context that students would ordinarily encounter the team leader, and therefore, be in a position to initiate the consultative process.

The fourth most frequently consulted individuals were other 300 Level students. Very few students (3.6%) indicated that they had never consulted with one of their peers during the ten-month period studied. As shown in Table 6, the number of consultations initiated with other students in the level is quite evenly distributed among the frequency categories, with the majority of students (21.4%) stating they had consulted with a classmate between 4 and 6 times.

Graduate nurses, not co-assigned to the student, are the fifth most frequently consulted. As demonstrated by Table 6, more than half (53.6%) of the respondents indicated consultation with a member of this group between 1 and 6 times.

The three categories of health care team members who were consulted least are 400 Level students, pharmacists and area supervisors.

Sixty-eight (80.95%) respondents had never consulted a 400 Level student for the purpose of clarifying or expanding on an idea or issue related to clinical practice. These students are the immediate seniors of 300 Level students and at the time of the study the two levels of student were not posted to the same clinical areas. Those 300 Level students (19% of respondents) who had consulted with a 400 Level student would have done so on their own time.

As shown in Table 6, most of the students (75%) had also not consulted with a pharmacist during their time in the level. At the time of the study, students did not have a formal course in pharmacology but in the clinical setting were supervised either by an instructor, team leader or graduate nurse when administering medications. This process involved identification of the drug, its actions and side effects, or necessary precautions, and the mechanics of actually giving the medication to the patient. For the 300 Level student, this procedure was adequate in meeting both their learning needs and their patients' needs for safety.

Also shown in Table 6, the majority (83.3%) of students had not consulted with an area supervisor while in a 300 Level posting. Area supervisors are at the managerial level and are responsible for more than one clinical area or unit.

Perceptions of Accessibility

The respondents were asked to indicate their perceptions of the accessibility of the members of the health care team with whom they sought consultation. In reporting the data, the categories which ranked highest and lowest are presented. Results are presented in Table 7.

The members of the health care team perceived as most accessible by the respondents were other 300 Level students. Generally, there are several students at this level assigned to the same clinical area at the same time. They may also be assigned to patients located in the same room. Therefore, they are in close proximity during

TABLE 7

ACCESSIBILITY OF HEALTH CARE TEAM MEMBERS

Category of Personnel	Perceived degree of accessibility+
300 Level student	4.5
Unit clerk	4.3
Instructor	4.2
Graduate nurse, co-assigned to student	4.2
Graduate nurse, not co-assigned to student	4.0
Team Leader	4.0
Pharmacist	3.0
Physiotherapist	2.9
Technician (e.g. respiratory technician)	2.8
Dietician	2.8
Physician (resident)	2.6
400 Level student	2.6
Physician (on staff)	2.2
Area supervisor	2.0

+Scale: 1 - Very hard to reach, to 5 - Very easy to reach

delivery of patient care, and often they are learning similar theory and skills related to this care. The 300 Level students also have a weekly class day during which concepts considered common to all clinical areas are presented and the entire class is together at this time. Material is taught in the large group, several small groups or a combination of the two. Particularly during the class day students have ready access to one another. Furthermore, it is a common practice for students to work in pairs or small groups when studying and/or completing assignments, although this element was not considered as a variable in the current study.

The second most accessible category of personnel, as presented in Table 7, is that of unit clerk. The function of the unit clerk is to act as a receptionist and clerical assistant at the nursing station. She receives telephone calls and releases selected information related to patients and nursing unit activities, and carries out clerical functions associated with patient records, and services and supplies from other departments. Because the unit clerk is situated at the nursing station, she is available to answer questions regarding such things as nursing unit routines and the location of supplies. Students are posted to unfamiliar nursing units frequently, so the information imparted to them by clerks can be valuable in terms of orientation to the area and providing patient care.

As shown in Table 7, the instructor's accessibility is ranked third. Although a primary goal of the instructor is nursing education,

there are other commitments encumbent in the position which may reduce accessibility to students. Two examples are memberships on nursing service and education committees and faculty-based meetings.

The availability of members of the nursing staff ranks fourth and fifth. Students perceived the nurses with whom they were co-assigned to patients as slightly more accessible than those with whom they were not co-assigned.

Discussion. Basically, nurses are responsible for assessing, planning, implementing and evaluating nursing care given to patients. When co-assigned with a student they serve as the direct role models for these activities. Because the hospital used in the current study is a teaching institution, there is a commitment to education for all levels of learners. The general definition of responsibilities for registered nurses working in the hospital specifically refers to participation in the education of students and the high degree of accessibility perceived by the respondents reflects this philosophy.

As shown in Table 7, the accessibility of the team leader is equal to that of a graduate nurse not co-assigned to students.

Discussion. The team leader is responsible for planning the nursing care for a group of patients and for guiding and directing the members of the health care team in carrying out the assignment. The team leader is accessible to students as a function of the responsibilities of the position. These include coordinating the work, providing learning experiences for student nurses, holding patient conferences, updating patient records, and reporting/receiving pertinent information

to/from the appropriate member of the team. All aspects carry the potential for consultation, that is, for meetings initiated by the student for the express purpose of clarifying or expanding on an idea or issue related to clinical practice.

The categories of members of the health care team who were considered least accessible by the respondents are also presented in Table 7. They include pharmacists, physiotherapists, technicians and dieticians.

Discussion. All of these people function as members of the team but do not necessarily encounter the patient on the nursing unit which is where students would most likely seek their expertise. Because these members of the health care team are located in other parts of the hospitals their availability is limited.

Two other categories of personnel perceived as having low accessibility are 400 Level students and area supervisors. This low accessibility is reflected in the number of consultations sought with them, and is discussed in the previous section.

The remaining two categories of members of the health care team which are seen as having low accessibility are resident physicians and physicians on staff.

A comparison between the members of the health care team most frequently consulted and those considered most accessible is shown in Table 8 with both perceptions rank-ordered from highest to lowest.

TABLE 8

COMPARISON BETWEEN PERSONNEL MOST FREQUENTLY CONSULTED AND PERSONNEL CONSIDERED MOST ACCESSIBLE

Most frequently consulted (rank order)	Most accessible (rank order)
Instructor	300 Level student
Graduate nurse, co-assigned to student	Unit clerk
Team Leader	Instructor
300 Level student	Graduate nurses, co-assigned and not co-assigned
Graduate nurse, not co-assigned	Team Leader

Although instructors were the most frequently consulted they were not the easiest to reach. Rather, they ranked third after other 300 Level students and unit clerks. Graduate nurses, both those co-assigned with students and those not co-assigned followed instructors in terms of accessibility although those co-assigned were reported as second most frequently consulted and those not co-assigned were the fifth most frequently consulted.

Other 300 Level students were seen most accessible but were fourth in frequency of consultations. Team leaders were third for frequency of consultations, and fifth in accessibility.

A comparison between members of the health care team least frequently consulted and those considered least accessible is presented in Table 9.

Area supervisors were least frequently consulted and perceived as being least accessible. The frequency may be a function of the accessibility and therefore reflected as such in the students' responses.

Pharmacists formed the second lowest group for frequency of consultation; 400 Level students were third. This order was reversed in the results regarding low accessibility.

TABLE 9

COMPARISON BETWEEN PERSONNEL LEAST FREQUENTLY CONSULTED AND PERSONNEL CONSIDERED LEAST ACCESSIBLE

Least frequently consulted (rank order)	Least accessible (rank order)
Technician	Technician
Dietician	Dietician
400 Level Student	Physician
Pharmacist	400 Level Student
Area Supervisor	Area Supervisor

Rationale for Consultation

There are several reasons why students might seek consultation, and in completing the questionnaire, the respondents were asked to indicate all the situations in which they approached other members of the health care team.

As shown in Table 10, the reason cited as the most frequent basis for consultation was "Assistance in performing clinical procedures requiring more than one person to complete." One possible interpretation of this response is that completion of the procedure was facilitated when physical assistance was sought. Another interpretation is that knowledge regarding the procedure was incomplete and the input of another member of the health care team was necessary either to complete the procedure or to perform it safely. Nearly all the respondents (97.6%) indicated this as a reason for initiating consultation.

The second most frequently chosen response (94%) was "Assistance with clinical procedures which have been taught but about which there is uncertainty." Again, there are two primary components to this response: psychomotor, in that the skill may have been described or demonstrated to the student but not yet performed by him or her, and cognitive, whereby the student may be unsure regarding his or her own awareness of all aspects of the procedure.

"Assistance in gathering assessment data relevant to patient assignment" was the third most commonly cited reason, and was indicated by 88% of the students. At 300 Level, the students encounter a greater

TABLE 10

REASONS FOR CONSULTATION IN THE CLINICAL SETTING:
FREQUENCY AND PERCENTAGE DISTRIBUTIONS

Reason	# of Students indicating response	% of Students indicating response
Assistance in performing clinical procedures requiring more than one person to complete.	82	97.6
Assistance with clinical procedures which have been taught but about which there is uncertainty.	79	94.0
Assistance in gathering assessment data relevant to patient assignment.	74	88.1
Assistance with organizational routines and/or procedures.	73	86.9
Assistance in acquiring knowledge which has been taught but about which is uncertainity.	72	85.7
Assistance in acquiring further information beyond basic course theory.	66	78.6
Assistance in acquiring clinical skills beyond the basic level.	64	76.2
Feedback and/or assistance with evaluation.	64	76.2
Assistance in gaining access to other nursing activities (such as special procedures).	61	72.6
Assistance in gaining access to further resources (such as textbooks).	50	59.5
Wish to communicate for personal, rather than professional, reason.	46	54.8

degree of complexity than that to which they have previously been exposed. This applies to patient conditions as well as number of patients for whom they are responsible. To assist students in organizing care, it is often necessary to help set priorities. One way of providing this assistance is to identify sources of pertinent information (both from members of the health care team and patient records). This is followed by selection of information that is relevant to planning care. Until students have some clinical experience they often require guidance in decisions regarding sources and selection.

As shown in Table 10, 86.9% of the respondents sought consultation for assistance with organizational routines and/or procedures. Because of the frequent changes in clinical areas to which they are posted, students are exposed to a variety of routines and schedules practiced on individual nursing units. Although these are usually presented in an orientation period, some details are invariably missed by most students, and these are clarified as the students progress through clinical practice. Also, there are several procedures which are in use throughout the hospitals that are described in a Nursing Care Reference Manual. Although procedures are outlined in considerable detail, students usually require at least minimal guidance in their use initially. Furthermore, most nursing units have procedures specific to the patients admitted to that clinical area. One example is electronic fetal monitoring in obstetrics. This procedure must be taught, then supervised, by the people in this area who possess the knowledge and expertise to employ it.

"Assistance in acquiring knowledge which has been taught but about which there is uncertainity" was ranked fifth, and was indicated by 85.7% of the respondents.

The rationale of acquiring information and skills beyond the basic levels offered in the course ranked sixth and seventh. Students who indicated these responses may be those previously referred to as having mastered the necessary knowledge and skills.

Respondents indicated that "feedback and/or assistance with evaluation" was as important as assistance in acquiring further clinical skills, as a reason for seeking consultation. The intent of this feedback could vary from input regarding a single procedure to evaluation of overall clinical performance.

Fewer students indicated that assistance in gaining access to other nursing activities and resources were reasons for consultation. These ranked ninth and tenth, and were chosen by 72.6% and 59.5% of the respondents. Again, many students who indicated these responses could be those who have mastered the basic course material and wish to have further learning experiences.

The "wish to communicate for personal, rather than professional reason" ranked tenth and was indicated by 54.8% of the students. Some of the respondents elaborated by stating that they sought consultation for support and/or socialization.

Characteristics of Personnel Sought for Consultation

The respondents were asked to indicate the characteristics from a list of twenty descriptive statements which they felt applied to various members of the health care team with whom they had consulted. In reporting the data the three most frequently chosen responses for each category of personnel are presented. In some instances more than one characteristic received an equal number of responses. The results are presented in Table 11.

Regarding their consultations with physicians, students perceived the strong knowledge base as the most typical characteristic of this category of personnel. This was followed by the doctors being informed regarding technical trends and developments, and third, by their ability to stimulate the students' curiosity about their clinical specialty or to arouse interest in some specific material relevant to the specialty.

The respondents indicated that the most important characteristic of their nursing instructors was availability to students, followed by encouragement of student participation. Two items received equal weighting as the next most frequently chosen characteristics. They were the demonstration of skills, attitudes and values important to nursing students, and encouraging students to ask questions or ask for help.

In choosing the characteristics applicable to nurses, students again indicated availability most frequently. Next, in order, they

TABLE 11

CHARACTERISTICS OF PERSONNEL SOUGHT FOR CONSULTATION
PERCENTAGE DISTRIBUTIONS

Category of Personnel Consulted	Rank of Characteristic	Characteristic	% of Respondents Indicating
Physician	1	Strong knowledge base	81.0
	2 =	Informed of technical trends	58.3
	2 =	Stimulate curiosity regarding specialty	58.3
Instructor	1	Available to students	96.4
	2	Encourage participation	95.2
	3 =	Demonstrates important skills, values, attitudes	94.1
	3 =	Encourage questions, requests for help	94.1
Nurse	1	Available to students	96.4
	2	Share own ideas	84.5
	3	Sense of humor	80.0
Allied health professional	1	Strong knowledge base	51.2
	2 =	Sense of humor	45.2
	2 =	Informed of technical trends	45.2
	2 =	Access to other sources	45.2
Technician	1	Strong knowledge base	46.4
	2	Informed of technical trends	41.7
	3	Access to other sources	36.9
Student	1	Sense of humor	89.3
	2	Recognize own limitations	86.9
	3	Share own ideas	76.2

felt that nurses shared their own ideas with students and had a sense of humor.

The characteristics identified as most typical of allied health professionals and technicians included a strong knowledge base, access to other sources, and that these personnel were informed regarding technical developments and trends. Further detail regarding these choices and others are presented in Table 11.

In evaluating their consultations with their peers the respondents most frequently indicated that a sense of humor characterized this group. Recognition of their own limitations and sharing their own ideas with their fellows followed.

With regard to the descriptive statements chosen as typical of instructors, nurses and other students, many were chosen with high frequency. Since these three categories of personnel were indicated as those most frequently consulted, their characteristics are further elucidated in Table 12. The ten most frequently chosen characteristics of instructors serve as an arbitrary benchmark in this comparison.

Nursing staff compared favorably with instructors for most characteristics although the data did not demonstrate that nurses were stronger in any of the features examined. In none of the ten top ranking characteristics did students indicate that their peers were stronger than either instructors or nursing staff. As previously stated, the two characteristics which were not tabulated, and which respondents indicated typified their peers more strongly than any

other category of personnel were sense of humor and recognition of own limitations.

TABLE 12

COMPARISON OF CHARACTERISTICS OF INSTRUCTORS, NURSES AND STUDENTS: PERCENTAGE DISTRIBUTIONS

Rank of Characteristic	Characteristic	% of Respondents Choosing Specific Characteristic:		
		Instructor	Nurse	Student
1	Available	96.4	96.4	54.8
2	Encourage participation	95.2	78.6	46.4
3	Demonstrate important skills, values, attitudes	94.1	68.9	54.8
4	Encourage questions, requests for help	94.1	78.5	54.8
5	Encourage independent thought, learning	91.7	60.7	44.1
6	Correlate practice and theory	91.7	57.1	58.3
7	Supervise without taking over	89.3	77.4	32.1
8	Refer to other sources	89.3	69.1	57.1
9	Strong theory base	88.1	75.0	28.5
10	Informed of professional trends	86.9	69.1	22.6

Satisfaction With Consultation

Respondents were asked to indicate the degree of satisfaction they felt with each category of personnel with whom they consulted, based on their experiences in 300 Level. The results are presented in Table 13, using means based on a Likert scale with a value of one to indicate very low satisfaction ranging to five, representing very high satisfaction.

TABLE 13

DEGREE OF SATISFACTION WITH CONSULTATION+

Category of Personnel	Mean Degree of Satisfaction
Other students	4.32
Nursing instructors	4.01
Nursing staff	3.65
Allied health professionals	3.03
Technicians	2.82
Physicians	2.67

+Scale: 1 - Very low satisfaction, to 5 - Very high satisfaction

The students perceived their degree of satisfaction in consulting physicians to be the lowest among the categories of personnel examined. Consultations with other students were perceived as highest in satisfaction while instructors ranked second. Consultations with both of these categories of personnel were perceived as highly satisfactory.

RELATIONSHIP BETWEEN CONSULTATION NEEDS AND DEMOGRAPHIC VARIABLES

In order to determine if statistically significant relationships existed between the respondents' consultation needs and key demographic variables, several statistical analyses were performed, as reported in Chapter 3. The results of these procedures are summarized in Table 14.

Domestic Status

Students who lived alone at the time of the study indicated that their consultation needs were greater than those who shared living quarters and those who were married. The latter group indicated the lowest need.

With regard to frequency of consultation, the married students and those living with their families, reported the lowest frequency and those who shared living quarters were the highest.

Finally, the degree of satisfaction with the results of consultation was slightly higher among students who shared living arrangements than those who were married or living with family. Degree of satisfaction was much lower for those who lived alone but this result, like the others in this section, did not demonstrate a statistically significant difference.

Age

The respondents who were twenty years of age or less, as opposed to the group over twenty, indicated a higher need for consultation

TABLE 14

RELATIONSHIPS BETWEEN CONSULTATION INDICES AND DEMOGRAPHIC VARIABLES

Demographic Factor	Consultation Index (Means) Need	Frequency	Satisfaction
Domestic Status			
Living alone	3.55	2.47	3.13
Living with spouse/family	3.25	2.41	3.50
Living in shared quarters	3.38	2.56	3.51
F-Value	1.19	0.76	2.43
p	0.31	0.47	0.09
Age			
<20	3.48	2.43	3.46
>20	3.24	2.49	3.48
T	1.80	-0.48	-0.16
p	0.08	0.63	0.87
Work Experience			
Non-nursing background	3.37	2.49	3.48
Nursing background	3.04	2.32	3.41
T	1.26	0.76	0.32
p	0.21	0.45	0.75
Level of Education			
High school diploma or less	3.38	2.48	3.47
Some post-secondary education	3.09	2.42	3.49
T	1.77	0.44	-0.13
p	0.08	0.66	0.89

although they reported lower frequency of initiating consultation as well as a lower degree of satisfaction. Again, the differences between these two groups, on all three indices, were not statistically significant.

Work Experience

The results with regard to this variable did not include the entire population represented in the study since respondents who indicated that they had both nursing and non-nursing work experience were excluded. Thus, two distinct categories emerged, eliminating a group in which overlap occurred.

Students with a non-nursing background indicated that their perceived level of need for consultation was higher than that of students (N=6) who had some experience with nursing responsibilities prior to entering the program. This same group, who had had no previous experience in nursing, reported a higher frequency of initiating consultation and a higher degree of satisfaction with their consultative activities. However, the differences between these two groups were once again not statistically significant.

Educational Background

Students who indicated that the highest level of education which they had completed was a high school diploma or less, reported perceiving a greater need for initiating consultation than students who had some post-secondary education. The former group also consulted with another member of the health care team with slightly greater frequency than did the latter group. However, students with some

post-secondary education reported slightly greater satisfaction with the results of their consulting activities. These differences were not statistically significant.

The students who reported the highest level of satisfaction with their consultation activities were those who shared living quarters (by a very slight margin over those who were married or living with family), were over twenty, had a non-nursing background, and/or had some post-secondary education. However it should be noted that none of these differences were statistically significant.

CORRELATION BETWEEN NEEDS, FREQUENCY AND SATISFACTION

A Pearson product moment correlation was performed to determine the relationships between the following pairs of variables: consultation needs and frequency, needs and satisfaction with consultation, and frequency and satisfaction. The results of this analysis are represented in Table 15. The only statistically significant relationship demonstrated was between satisfaction and frequency. The more frequently students engaged in consulting activity, the greater was the degree of satisfaction they perceived with the consultation.

TABLE 15

CORRELATION BETWEEN NEEDS, FREQUENCY AND SATISFACTION:

PEARSON PRODUCT MOMENT CORRELATION

	Need	Frequency	Satisfaction
Need	--	0.04 p = 0.36	0.15 p = 0.09
Frequency	0.04 p = 0.36	--	0.25 p = 0.01
Satisfaction	0.15 p = 0.09	0.25 p = 0.01	--

Summary

To summarize, the three most frequently consulted categories of personnel will be reviewed. accompanied by some of the other pertinent findings related to consultation with these personnel. This will be followed by a brief review of the relationships between consultation needs, frequency and satisfaction, and key demographic variables.

The most frequently consulted category was that of nursing instructor, although the respondents perceived instructors to be the third most accesssible and second in providing satisfactory results.

Nursing personnel constituted the next most frequently consulted group. Students perceived graduate nurses as less accessible than

instructors and they were also less satisfied with their consultations with nurses.

The category of unit-based administrators, such as team leader, ranked third in the number of consultations with students and third in degree of satisfaction with consultation, as members of the category of nursing personnel. Team leaders were seen as fifth in the degree of accessibility.

Finally, the sequence and number of postings completed in the level exerted little influence on the students' perceptions of their consultative needs and activities in each of the five clinical postings.

The analyses performed to determine if statistically significant relationships existed between the three consultation indices (needs, frequency, degree of satisfaction) and key demographic variables revealed that no relationships did exist although some trends could be identified.

To conclude this section, further analyses of the three indices demonstrated that the more frequently students consulted with others, the greater the degree of satisfaction they felt with this activity.

CHAPTER 5

SUMMARY, CONCLUSIONS AND IMPLICATIONS

This chapter will provide a summary of the research problem, procedure and results of the study. Conclusions will be stated and some implications for practice and further research will be discussed.

SUMMARY

The consultation needs and activities of nursing students is an area of behavior in which little research has been conducted. However, the persons to whom students turn for information, assistance and feedback have significance for all who are involved in nursing education.

This study was designed to provide all levels of personnel in nursing education with information concerning patterns of consultation used by students in a hospital-based diploma program in nursing. It sought to determine the category of personnel consulted, the frequency with which each category was consulted, the situations or factors which precipitated consultation, the characteristics of each category of consultant which students perceived as typical and the satisfaction students felt in their consultations with each category.

A questionnaire was developed to investigate the experiences and opinions of nursing students. The instrument was divided into two sections. The first section addressed the subjects mentioned in the preceding paragraph and the second section requested information

related to personal, work and educational factors. The population for this study included students in the second year of a 26-month diploma program in nursing. The segment of the program these students were asked to focus on in giving their responses was the 10-month period designated as the 300 Level. At the time the study was conducted some of the students had completed three of the five courses in the level, and the remainder had completed all five. These courses included two-month blocks in medicine, surgery, pediatrics, obstetrics and psychiatry.

Frequency and percentage distributions were utilized to summarize the demographic and situational data gathered from 85 respondents. One student was unable to complete the questionnaire and thus it was considered invalid in terms of interpreting the data. Therefore, this represented a return rate of ninety-eight percent.

Mean scores were used to summarize the results for the questions related to perceptions of consultative needs, frequency of consultation with and accessibility of specified categories of personnel, and satisfaction with the consultations with the personnel of designated categories.

A one way analysis of variance was performed to test for statistically significant differences in the means of students' perceptions of their consultative needs based on the sequence of their postings in the 300 Level.

Further analyses were then computed to determine if statistically significant relationships existed between each of three consultation indices and four key demographic variables.

Finally, a Pearson product moment correlation was used to determine the presence of statistically significant relationships between the items of the three possible pairs of the three consultation indices.

CONCLUSIONS

The analysis of the data revealed the findings described in this section. These are relevant to the subproblems specified in Chapter 1.

Perceptions of Consultative Needs

As discussed in the previous chapter, and indicated in Table 4 (page 56) the students' perceptions of the extent of the need for consultation in each of the five postings varied. The mean consultative need was slightly above average in all clinical areas. The mean of the perceived degree of consultative need was highest for postings to medical units ($\bar{x}$ = 3.58) and lowest for psychiatry ($\bar{x}$ = 3.01). In descending order, the need for consultation in the remaining postings was as follows: surgery, pediatrics and obstetrics. The students did not indicate a wide range in their perceived level of this need. Furthermore, their opinions of their consultative needs, based on the sequence and number of postings, indicated that these factors had little bearing on the degree of need perceived.

Personnel Consulted

The personnel within the organization with whom students consulted and the frequency with which these consultations were initiated has been presented in Chapter 4, accompanied by Table 6 (page 59). The respondents were asked to specify the number of times during 300 Level that they had consulted with designated categories of health care team member. Frequency distributions of the resulting data demonstrated that nursing instructors were consulted the most frequently by a wide margin over the next most frequently consulted category, that of graduate nurses co-assigned with the student. About 70% of the respondents had initiated consultation with an instructor more than nine times during the ten month period, as opposed to approximately 55% who followed this same pattern with the co-assigned nurse. Frequency of consultation dropped markedly to the next three categories. In order of decreasing frequency these included team leaders, other 300 Level students, and graduate nurses not co-assigned with students.

Several categories of personnel were never, or very rarely consulted with by the respondents. These were 400 Level students, pharmacists and area supervisors.

Other members of the health care team were consulted with varying frequency but students indicated that generally, they rarely sought discussion with such people as medical staff and allied health professionals.

Accessibility

In the third research problem, the students' perceptions of the accessibility of various resource persons for the purpose of consultation were sought. The responses to the questionnaire items related to this problem were presented in Chapter 4 along with Tables 7 and 8 (pages 62 and 66). Six categories of personnel were perceived as easy to reach or very easy to reach. The most frequently consulted members of the health care team were included in these six. Fellow students were perceived as the category of personnel most available, followed by unit clerks who would most likely be available due, in large part, to their physical presence at the desk of the nursing station. These two categories are succeeded by those of instructor and graduate co-assigned to the student. Considered slightly less available were graduate nurses who were not co-assigned to the students, and following them, were those nurses holding unit-based administrative positions. The example of this position which was specified in the study was team leader.

Factors Precipitating Consultation

The students who participated in the study had several reasons for seeking consultation with other members of the health care team (Table 10, page 69). Primarily they sought assistance to perform or complete clinical procedures or routines. There was also a strong emphasis on the theoretical component of their nursing practice. In this regard, these students sought assistance to gather assessment data relevant to patient care and to clarify information about which they were uncertain.

In Chapter 1, it was postulated that some students have mastered the necessary skills and knowledge pertinent to the specific clinical area, and that they engage in consultative activities to further their own learning and growth. Several items in the questionnaire could be considered relevant in this circumstance. Many students indicated that they initiated consultation in order to gain access to other nursing skills, procedures, information and/or resources beyond those available to them as part of their course content or that dictated by the curriculum.

Feedback and evaluation have been cited in the literature as important functions of nursing instructors. Although the questionnaire item does not specify this particular category of personnel, a majority of the respondents indicated that they initiated consultation for this reason. Many of the respondents sought consultation with some member of the health care team for personal, rather than professional reasons.

Characteristics of Personnel Consulted

The fifth research problem sought to investigate the characteristics which students saw as typical of each category of personnel consulted. The results related to this question are presented in Chapter 4 and are presented in detail in Tables 11 and 12 (pages 73 and 75). However, the frequency and percentage distributions reveal some characteristics which the respondents have indicated they perceived as typical regardless of which members of the health care team they consulted. Primarily,

respondents indicated that those with whom they consulted had a sense of humor and strong knowledge base. Other characteristics which were chosen frequently reflected a combination of interpersonal and professional skills. They included encouraging students to ask questions or request help, sharing own ideas and stressing important ideas. Another important factor was the availability of the consultant in the clinical setting.

Satisfaction With Consultation

This question sought to determine the degree of satisfaction which students felt resulted from their consultation with each category of personnel. As has been previously discussed and is evident in Table 13 (page 76), in this regard, the respondents were most satisfied with other students, and least satisfied with physicians. In descending order, nursing instructors and nursing staff succeeded the category of "other students".

The reasons for the respondents degree of satisfaction with their consultations with various categories of personnel were not sought and therefore, not investigated.

Relationships Between Consultation Indices and Demographic Variables

The three dependent variables of consultation needs, frequency of consultation and degree of satisfaction with consultation were examined in terms of four independent variables. These four included domestic status, age, work experience prior to entering the program and educational background.

The effect of each of the independent variables on each dependent variable was not statistically significant although some trends regarding perceived levels of consultation need could be identified.

Finally, a quantifiable relationship exists between frequency of consultation and degree of satisfaction. That is, the greater the frequency of consultation the greater the satisfaction derived from this activity.

Summary

The following statements are based on the findings of this study.

1. Nursing students perceive that their consultative needs vary depending on the clinical specialty they are experiencing. Although these needs vary, there is not a wide discrepancy regarding degree of need depending on the particular posting.
2. The students in this study indicated a range of average to slightly above average degrees of consultative needs in their postings.
3. Nursing instructors are consulted more frequently than any other category of personnel, and other students are also consulted frequently.
4. When students wish to consult with another member of the health care team, other students are perceived as being most accessible.
5. Students are more satisfied with their consultations with other students than they are with those with instructors.
6. Students at this level require assistance with procedures regarding patient care and with integration of theory more often

than they seek assistance to build on a basic level of clinical practice and academic achievement.

7. Some students seek consultation with another member of the health care team for personal rather than professional reasons. Those cited by students include socialization and emotional support.
8. The qualities valued by students, regardless of the category of personnel consulted, include strong knowledge base and a sense of humor. Communication skills and sensitivity to the students' need for encouragement are also deemed important.
9. Such factors as domestic status, age and occupational/educational background appear to have little influence on consultation needs.
10. The more often students engage in consultation activities, the more satisfied they are with the results.

IMPLICATIONS

Although the results of this study provided some conclusive findings that are in accord with factors revealed in the review of the literature, it is recognized that further research is needed regarding the consultative practices of nursing students. Therefore, the implications stated here are suggestions only and are offered with caution.

Implications for Practice

Nursing students' perceptions of their needs to consult with other members of the health care team vary slightly depending on the clinical area to which they are posted. Therefore, instructors receiving students to their areas should be cognizant of the high

level of need for consultation and make formal provision for this process.

The needs related to a particular clinical area could be incorporated into orientation procedures in an attempt to reduce the uncertainty students report they have with relation to both practice and theory. Furthermore, instructors should anticipate that virtually all students will engage in consultation in the completion of clinical procedures, and that more than half will seek consultation for a wide range of other reasons. Among these reasons is the wish to communicate for personal reasons. Hence, instructors should be prepared to deal with students for a variety of personal and social needs, and be prepared to determine which needs require referral to other professionals. The implication is that instructors develop awareness of the students' areas of highest need, and be prepared to respond to these.

Students also indicated that they relied heavily on their peers in the consultation process, which presents another implication for the orientation phase. In a specific presentation students could be informed of the benefits they may find in co-operation with their peers. Methods for the selection and implementation of cohort groups could be suggested, as well as means whereby each group might achieve its greatest potential.

Students indicated that although instructors ranked first in the choice of consultant, they were not the most accessible. Mandatory commitments in addition to the teaching and supervision of students

make it difficult to reconcile this lack. However, instructors could clearly indicate the nature of their schedules and those times when they are available to meet with students, and should try to increase their accessibility.

The personal and professional characteristics of consultants, particularly those of nursing instructors, should be of special interest to both administrative personnel in nursing education, and to faculty members. The emphasis placed on developing or enhancing the two qualities of strong knowledge base and sense of humor, as well as others indicated in this study, could be a major concern in schools of nursing. Faculty could initially be selected who possess experience and expertise in various areas of nursing practice. With regard to sense of humor, this quality may be reflected in the individual's communication skills and in the ability to assist others to feel at ease. In the presence of such an instructor, the student may find he/she can perceive and appreciate the lighter side of the learning process. Workshops or in-service education programs which focus on this aspect of personal development could be instituted to foster development of these skills.

Conscientious attention to selecting faculty who possess some or all of the characteristics identified in this study, or assisting present faculty in their development, could promote an optimum learning environment for students.

The students who participated in the study indicated that they perceived several groups of health care team members as having low

accessibility, and that consultations with people in these categories were low in satisfaction. However, they also indicated that the members of these categories of personnel often possessed the strong knowledge base they considered an important quality in consultants. A way to ameliorate the somewhat negative perceptions might be to institute more formal and informal teaching exchanges between students and other personnel. The latter's expertise and points of view could provide a greater depth to the students' learning experiences.

A significant thread throughout these implications is that the process of consultation should be sought and encouraged.

Implications for Research

Many studies have addressed the qualities of nursing instructors which enhance the student's learning experience, but there is little in the literature related to how these qualities, combined with other factors, affect the consultative needs and activities of students. More research in this area of student behavior is needed to define ways in which all members of the health care team, but particularly instructors, can improve the outcomes of consultation activities.

Further research might address the areas which follow:

1. Students were asked to respond to items which required retrospective examination of events occurring from six to ten months prior to receiving the questionnaire. To improve the accuracy of responses and to provide input specific to individual

clinical areas, a modified version of the questionnaire could be administered to students as they completed each posting.

2. Further elaboration of the items related to accessibility, reasons for consultation and degree of satisfaction could yield more information regarding both consultative needs and activities, so that more generalizations regarding the findings could be made.
3. In this study, students were asked for their overall impressions of groups consisting of several people rather than their perceptions of individual members of the health care team. Greater specificity regarding consultants could yield more definitive results.
4. This study could be repeated using other populations of nursing students, again so that generalizations could be substantiated.

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APPENDIX

Questionnaire: Consultative Needs

The purpose of this questionnaire is to gather information related to the consultative needs of nursing students.

A consultation is defined as a meeting initiated by the student for the express purpose of clarifying or expanding on an idea or issue related to clinical practice.

Please base your answers on your experiences and perceptions of situations occurring in the clinical setting.

QUESTIONNAIRE: CONSULTATIVE NEEDS

1. List the order in which you completed your 300 Level postings.

_____ Medicine

_____ Surgery

_____ Pediatrics

_____ Obstetrics

_____ Psychiatry

2. Please indicate your perceptions of your consultative needs. Circle one for each posting in 300 Level, using the following scale:

1 - very low
2 - low
3 - average
4 - high
5 - very high

Medicine	1	2	3	4	5
Surgery	1	2	3	4	5
Pediatrics	1	2	3	4	5
Obstetrics	1	2	3	4	5
Psychiatry	1	2	3	4	5

3. For each of the following categories of health care team member, please check (✓) the column indicating the number of times you have initiated a consultation with that category of personnel, based on your experience in 300 Level.

	1 Never	2 1-3	3 4-6	4 7-9	5 More than 9
Instructor					
Area supervisor					
Unit supervisor					
Team leader					
Graduate nurse, co-assigned to student					
Graduate nurse, not assigned					
400 Level student					
300 Level student					
Physician (on staff)					
Physician (resident)					
Student intern (medical student)					
Physiotherapist					
Dietician					
Pharmacist					
Technician (such as respiratory technician)					
Unit clerk					
Other					

If other(s), please specify category:

_____,

_____.

4. Please circle the number indicating your perception of the accessibility of each category of health care team member for student consultation, based on your experience in 300 Level. Use the following scale:

1 - very hard to reach
2 - hard to reach
3 - somewhat hard to reach
4 - easy to reach
5 - very easy to reach
N/A - not applicable

Instructor	1	2	3	4	5	N/A
Area supervisor	1	2	3	4	5	N/A
Unit supervisor	1	2	3	4	5	N/A
Team leader	1	2	3	4	5	N/A
Graduate nurse, co-assigned to student	1	2	3	4	5	N/A
Graduate nurse, not assigned	1	2	3	4	5	N/A
400 Level student	1	2	3	4	5	N/A
300 Level student	1	2	3	4	5	N/A
Physician (on staff)	1	2	3	4	5	N/A
Physician (resident)	1	2	3	4	5	N/A
Student intern (medical student)	1	2	3	4	5	N/A
Physiotherapist	1	2	3	4	5	N/A
Dietician	1	2	3	4	5	N/A
Pharmacist	1	2	3	4	5	N/A
Technician (such as respiratory technician)	1	2	3	4	5	N/A
Unit clerk	1	2	3	4	5	N/A
Other	1	2	3	4	5	N/A

If other(s), please specify

_____

_____

5. The following items describe some reasons why nursing students may consult with members of the health care team in the clinical setting. Please check (✓) all items which you feel apply to your contact with these personnel, based on your experience in 300 Level.

_____ Assistance in gathering assessment data relevant to patient assignment.

_____ Assistance with organizational routines and/or procedures.

_____ Assistance in performing clinical procedures requiring more than one person to complete.

_____ Assistance with clinical procedures which have been taught but about which there is uncertainty.

_____ Assistance in acquiring knowledge which has been taught but about which there is uncertainty.

_____ Assistance in acquiring clinical skills beyond the basic level.

_____ Assistance in acquiring further information beyond basic course theory.

_____ Assistance in gaining access to further resources (such as textbooks).

_____ Assistance in gaining access to other nursing activities (such as special procedures).

_____ Feedback and/or assistance with evaluation.

_____ Wish to communicate for personal, rather than professional, reason.

_____ If you have other reasons, please specify.

_____

_____

6. The following descriptive statements may be characteristic of members of the health care team with whom you have consulted. Please check (✓) all statements which you perceive as typical of each category of personnel which you have consulted, based on your experience in 300 Level. Complete the items for one category of personnel before going on to the next category.

The categories include the following:

Physicians
Nursing instructors
Nursing personnel
Allied health professionals (such as physiotherapists, dieticians)
Technicians (such as respiratory technicians)
Other students

	Physicians	Nursing Instructors	Nursing Personnel	Allied Health Professionals	Technicians	Students
Encourage independent thought and learning.						
Demonstrate skills, attitudes and values important to nursing students.						
Flexible when appropriate.						
Have a sense of humor.						
Recognize limitations students may have in theory and skills.						
Recognize own limitations.						
Encourage students to ask questions or ask for help.						
Share own ideas with students.						

	Physicians	Nursing Instructors	Nursing Personnel	Allied Health Professionals	Technicians	Students
Stress important ideas.						
Informed regarding technical developments and trends.						
Informed regarding professional developments and trends.						
Encourage student participation.						
Well-organized.						
Strong knowledge base.						
Correlate clinical practice and theory.						
Stimulate curiosity regarding clinical specialty (such as surgery) or some specific material relevant to specialty.						
Available to students in clinical setting.						
Supervise students without taking over.						
Refer to other sources/ resources when necessary.						
Have access to other sources/ resources.						

7. Please indicate your degree of satisfaction with your consultations with each of the categories of health care team member listed below, based on your experience in 300 Level. Use the following scale:

1 - very low satisfaction
2 - low satisfaction
3 - average satisfaction
4 - high satisfaction
5 - very high satisfaction
N/A - not applicable

Physicians	1	2	3	4	5	N/A
Nursing instructors	1	2	3	4	5	N/A
Nursing personnel	1	2	3	4	5	N/A
Allied health professionals (such as physiotherapists)	1	2	3	4	5	N/A
Technicians (such as respiratory technicians)	1	2	3	4	5	N/A
Other students	1	2	3	4	5	N/A

CLASSIFICATION DATA

In order to organize the information obtained in this questionnaire, it is necessary to have some personal data.

Please circle where appropriate.

1. Sex: Female ---------- 1
   Male ---------- 2

2. Domestic status: Living alone ---------- 1
   Living with spouse/family ---------- 2
   Living in group or shared quarters ---------- 3

3. Age group: 16-20 ---------- 1
   21-25 ---------- 2
   26-30 ---------- 3
   31-40 ---------- 4
   Over 40 ---------- 5

4. Past work experience: (Please circle all that apply)

   Occupation not health related ---------- 1
   Non-nursing occupation in health care facility ---------- 2
   Nursing occupation in health care facility ---------- 3
   Nursing occupation in home care setting ---------- 4

5. Level of education:

   Please indicate highest level of education completed, other than the current program. Circle one.

   Some high school ---------- 1
   High school diploma ---------- 2
   Baccalaureate degree ---------- 3
   Master's degree ---------- 4
   Doctoral degree ---------- 5
   Other ---------- 6

   If other, please indicate level.

   _____

Please indicate other post-secondary institutions attended. Check all that apply.

_____ Technological institute

_____ Other school of nursing

_____ College

_____ University

_____ Other

If other, please indicate type of institution.

_____

If you have additional comments related to the consultative needs of nursing students, please write in the space below.

THANK YOU.

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